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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,561

08/28/2003

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CIS0189C1US

7599

33031 7590 04/03/2009  
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EXAMINER

BATES, KEVIN T

ART UNIT

PAPER NUMBER

2456

MAIL DATE

DELIVERY MODE

04/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,561	<b>Applicant(s)</b> UZUN ET AL.	
	<b>Examiner</b> KEVIN BATES	<b>Art Unit</b> 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2-20-09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 67-74, 76-82, 84-117 and 119-127 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67-74, 76-82, 84-117 and 119-127 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

This Office Action is in response to a communication made on February 20, 2009.

Claims 1-66, 75, 83, and 188 are currently cancelled.

Claims 67-74, 76-82, 84-117, and 119-127 are currently pending in this application.

***Response to Arguments***

Applicant's arguments, with respect to 35 U.S.C. §112 of claim 85 have been fully considered and are persuasive. The rejection has been withdrawn.

The applicant argues that Blackard is non-analogous art. The examiner disagrees, Blackard is concerned with reducing network traffic over a network to prevent things such as buffer overflows and congestion. The actual details of having a RPR ring network with MAC devices are not required because one of ordinary skill at the time would be able to apply the teachings of Blackard's network to the elements of Enomoto to provide the stated improvements.

Applicant's arguments with respect to claims 67-74, 76-82, 84-117, and 119-127 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 67-74, 76-82, 84-117, and 119-127 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto (2003/0076781) in view of Blackard (5918020), and in further view of Davies (7369504).**

**Regarding claims 67, 101, and 110,** Enomoto teaches a method comprising:

for each of a plurality of media access control devices to which data is to be transmitted over a ring topology network, providing a corresponding a queue configure to transmit data in a first egress directed and a second egress direction over the ring topology network (§§170-171, §198, transmission queues per destination ring node, see *also* Figure 1 for the doubly linked ring network)

receiving data, from a local client, destined for a client of a first MAC device of the plurality of MAC devices (§229)

storing at least a portion of the data in a first queue corresponding to the first MAC device (§231, 248)

receiving information indicating a need to change an amount of data being transmitted to the client of the first MAC device (§237-238); and

selectively transmitting data stored in the first queue to the first MAC device and the client of the first MAC device; wherein

a rate at which the selectively transmitting is performed is based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted to the client of the first MAC device (§208); and

selectively transmitting further comprises transmitting data stored in the first queue in a selected one of the first egress direction and the second egress direction (¶208).

Enomoto does not explicitly indicate that the client of the first MAC device generates the request to change the amount of data being generated of that the transmission queues can deliver data either egress direction.

Blackard teaches a system for providing feedback into the network to slow down transfer rates, where the receiving client is initiating the indication (See Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use allow the client to send a congestion notice back into the network to prevent buffer overflows occurring on the receiving client.

Davis teaches a ring network that includes a MAC device comprising a per network flow queuing system (Col. 6, lines 37 – 60) wherein each queue is designed to be able to transmit messages in either egress direction (See Fig 6, where the access block for ringlet 0, includes add queues (66) which is sends messages through the traffic shaper (68) and can direct those messages to either RPR MAC ringlet 0 or RPR MAC ringlet 1, as evidences by the connection arrows).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Davis teaching of permitting the queues to transmit messages to either egress ports to allow traffic to be rerouted in case of failure or congestion.

**Regarding claim 85**, Enomoto teaches an apparatus comprising:

a first media access control (MAC) device operable to be coupled to a ring topology network (Figure 1, element A1-A4);

a buffer coupled to the first MAC device and operable to receive data from the first MAC device (§135);

a packet processor coupled to the buffer (§134);

a first plurality of queues, wherein each of the first plurality of queues corresponds to a respective network station, and is configured to transmit data in a first egress direction and a second egress direction over the ring topology network (§170-171, §198, transmission queues per destination ring node, see *also* Figure 1 for the doubly linked ring network); and

at least one shaper circuit, the at least one shaper circuit being configured to dequeue data stored in at least one of the first plurality of queues based at least in part on at least a portion of information indicating a need to change an amount of data being transmitted to the respective network station corresponding to the at least one of the first plurality of queues (§208, 178).

Enomoto does not explicitly indicate that the client of the first MAC device generates the request to change the amount of data being generated.

Blackard teaches a system for providing feedback into the network to slow down transfer rates, where the receiving client is initiating the indication (See Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use allow the client to send a congestion notice back into the network to prevent buffer overflows occurring on the receiving client.

**Regarding claims 68, 102, 105, and 111**, Enomoto teaches the method of claims 67, 101, and 110 further comprising: providing a second queue corresponding to the first MAC device to which data is to be transmitted over the network; storing at least another portion of the data destined for the at least one of the first MAC device and the client of the first MAC device in the second queue; and selectively transmitting data stored in the second queue to the at least one of the first MAC device and the client of the first MAC device; wherein a rate at which the selectively transmitting of data stored in the second queue is performed is based at least in part on one of: the at least a portion of the information indicating the need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device; and at least another portion of the information indicating the need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device (Figure 6, element 357; ¶187).

**Regarding claims 69, 92, 103, and 112**, Enomoto teaches the method of claims 68, 85, 102, and 111 wherein the first queue is for data having a first priority level, and wherein the second queue is for data having a second priority level (¶187).

**Regarding claims 70, 93, and 113**, Enomoto teaches the method of claims 67, 92, and 110 further comprising: providing a second queue corresponding to a second MAC device to which data is to be transmitted over the network; receiving data destined for at least one of the second MAC device and a client of the second MAC device; storing at least a portion of the data destined for the at least one of the second MAC device and the client of the second MAC device in the second queue; and selectively

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transmitting data stored in the second queue to the at least one of the second MAC device and the client of the second MAC device; wherein a rate at which the selectively transmitting of data stored in the second queue is performed is based at least in part on information indicating a need to change an amount of data being transmitted to the at least one of the second MAC device and the client of the second MAC device (§§170-171, §198, transmission queues per destination ring node).

**Regarding claims 71 and 114**, Enomoto teaches the method of claims 67 and 110 wherein the first queue is provided in a memory coupled to at least one of another MAC device and a client of the another MAC device (§§170-171, §198, transmission queues per destination ring node, are located in each ring node).

**Regarding claims 72, 96, and 115**, Enomoto teaches the method of claims 67, 85, and 110 wherein the first queue is provided one of a memory of a second MAC device and a client of the a memory of a second MAC device (§§170-171, §198, transmission queues per destination ring node, are located in each ring node).

**Regarding claims 74 and 117**, Enomoto teaches the method of claims 67 and 110 wherein the information indicating a need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device is received from at least one of the first MAC device, the client of the first MAC device, another MAC device, and a client of the another MAC device (§238).

**Regarding claims 76, 98, and 119**, Enomoto teaches the method of claims 67, 85, and 110 further comprising: receiving information indicating a need to change an amount of data being transmitted on a first network link between the first MAC device



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and another MAC device; selectively transmitting data being selectively transmitted to the at least one of the first MAC device and the client of the first MAC device; wherein another rate at which the selectively transmitting of data being selectively transmitted is performed is based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted on the first network link (§221).

**Regarding claims 73, 77, 89, 95, 99, 104, 106, 116, and 120**, Enomoto teaches the method of claims 67, 76, 87, 98, 101, 105, and 110 wherein the information indicating a need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device includes at least one of: a MAC device address, a data transmission rate, a ramp factor, a threshold value, a network link bandwidth value, and a flag (§238).

**Regarding claims 78, 88, 90, 107, and 121**, Enomoto teaches the method of claims 67, 85, 87, 101, and 110 further comprising: receiving information indicating a need to change an amount of data being transmitted on a first network link between the first MAC device and another MAC device, wherein the rate at which the selectively transmitting is performed is further based at least in part on at least a portion of the information indicating the need to change the amount of data being transmitted on the first network link (§238).

**Regarding claims 79 and 122**, Enomoto teaches the method of claims 67 and 110 further comprising: transmitting information indicating a need to change an amount of data being transmitted to at least one of another MAC device and a client of the another MAC device (§238).

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**Regarding claims 80, 87, 108, and 123**, Enomoto teaches the method of claims 79, 85, 101, and 122 further comprising: determining an extent to which a data buffer associated with the client of the another MAC device contains data; and preparing the information indicating the need to change the amount of data being transmitted to the at least one of the another MAC device and the client of the another MAC device (¶¶151-152).

**Regarding claims 81, 86, and 124**, Enomoto teaches the method of claims 67, 85, and 110.

Enomoto does not explicitly indicate wherein the network is at least one of a metropolitan area network (MAN) and a resilient packet ring (RPR) network.

Davis teaches a ring network that is at least one of a metropolitan area network (MAN) and a resilient packet ring (RPR) network (Col. 1, lines 23 - 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Davis' teaching of using a RPR in a MAN to adjust ring network rates to take advantage of the feedback ability of the RPRs.

**Regarding claims 82, 91, and 125**, Enomoto teaches the method of claims 67, 85, and 110.

Enomoto does not explicitly indicate wherein the information indicating a need to change an amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device is received in a resilient packet ring (RPR) fairness message

Knightly teaches a ring network that is at least one of a metropolitan area network (MAN) and a resilient packet ring (RPR) network and transmitting fairness messages (Col. 1, lines 23 – 32; Col. 2, lines 40 – 53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Knightly's teaching of using a RPR in a MAN to adjust ring network rates to take advantage of the feedback ability of the RPRs.

**Regarding claims 83 and 97**, Enomoto teaches the method of claim 67 encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of an electronic storage medium, a magnetic storage medium, and an optical storage medium (¶134).

**Regarding claims 84, 100, 109, and 126**, Enomoto teaches the method of claims 67, 85, 101, and 110 wherein the information indicating the need to change the amount of data being transmitted to the at least one of the first MAC device and the client of the first MAC device further comprises at least one of: information indicating the need to reduce the amount of data being transmitted, and information indicating the need to increase the amount of data being transmitted (¶238).

**Regarding claim 88**, Enomoto teaches the apparatus of claim 87 wherein at least one of the first MAC device, the buffer, the packet processor, the at least one shaper circuit, and the comparison circuit is further configured to prepare a message including information indicating a need to change an amount of data being transmitted to a network station that includes the first MAC device (¶151-152).

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**Regarding claim 94**, Enomoto teaches the apparatus of claim 93 wherein the at least a portion of the information indicating the need to change the amount of data being transmitted to the respective network station corresponding to the at least one of the second plurality of queues is the same as the at least a portion of the information indicating the need to change the amount of data being transmitted to the respective network station corresponding to the at least one of the first plurality of queues (§208).

**Regarding claim 127**, Enomoto teaches the method of claim 67, wherein the local client is a device or entity that invokes the service interface of a MAC device, and the local client is associated with a station in a ring network (§103).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571) 272-3980. The examiner can normally be reached on 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin Bates/  
Primary Examiner, Art Unit 2456